

### City of Santa Barbara Community Development

### Memorandum

DATE:

April 19, 2016

TO:

Building & Fire Code Appeals Board

FROM:

Andrew Stuffler, Chief Building Official Aus

SUBJECT:

3732 State Street, Santa Barbara, CA - Code Alternate Approval

On March 29, 2016 our office approved a Code Alternate in accordance with the 2013 California Building Code, Section 104.11 Alternative Materials, Design and Methods of Construction and Equipment (attached) and Section 11B-103 Equivalent Facilitation (attached). The alternative method of construction proposed is documented in the attached Code Alternate Construction or Material Proposal packet. This proposal was deemed to meet or exceed the accessibility and usability of an alternate tactile warning system relative to the system's quality, strength, effectiveness, fire-resistance, durability and safety. Specifically, our office considered the following:

- Durability of tactile warning
- Extent (amount) of tactile warning
- Color of the tactile warning
- Frequency, spacing, size and pattern of tactile warning
- Sound of a cane on the tactile warning

The above mentioned code sections specifically allow and set the approval criteria for the Building Official to consider and approve alternative methods of accessibility compliance.

It is important to give consideration to the context in which the code regulations are being applied. In this instance, the code regulations for tactile warning are written for use at a wide variety of applications such as busy bus transit centers, mall parking lots, etc. The proposed project is utilizing a private, one-way, narrow drive aisle that is shared with the pedestrian as a means of traffic calming. Staff has been advised that this type of shared vehicle transit/pedestrian way is called a "woonerf". This code alternate proposal was evaluated specifically for this "woonerf" application and not for more traditional and intense vehicular applications.

The proposed detectable warning alternate utilizes natural stone materials with a proven quality, strength, durability and safety history that are superior to the code standard, plastic, truncated domes. Further, the proposed alternate was evaluated by the Braille Institute and determined to be "preferable to the truncated domes that are placed for the same purpose", thus confirming that from a functional perspective, the extent frequency, pattern, and sound of the tactile warning was equivalent. The color of the proposed tactile warning will necessitate additional discussion throughout the plan check process. Of specific concern is that while the code requires only Federal Yellow color, the code does not prohibit Federal Yellow warning adjacent to another yellow or light color pavement – thus reducing or eliminating a contrast in color that visually impaired citizens can rely upon. Staff envisions a final design with a 70-80% light reflectance contrast between the proposed tactile warning and the adjacent vehicular way.

Given that the above criteria for code alternate approval was met, my office approved this code alternate.

Copy:

3732 State Street - Street File

Attached:

Approved City Code Alternate Construction or Modification Proposal submittal

Appellant's letter and documentation

2013 California Building Code, Sections 104.11 & 11B-103

### CHAPTER 11B

### ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS, COMMERCIAL BUILDINGS AND PUBLIC HOUSING

### DIVISION 1: APPLICATION AND ADMINISTRATION

### 11B-101 Purpose

IIB-101.1 General. This chapter contains scoping and technical requirements for accessibility to sites, facilities, buildings, and elements by individuals with disabilities. The requirements are to be applied during the design, construction, additions to, and alteration of sites, facilities, buildings, and elements to the extent required by Chapter 1, Section 1.9.

### 11B-101.2 Reserved.

11B-102 Dimensions for adults and children. The technical requirements are based on adult dimensions and anthropometrics. In addition, this *chapter* includes technical requirements based on children's dimensions and anthropometrics for drinking fountains, water closets, toilet compartments, lavatories and sinks, diving surfaces, and work surfaces.

11B-103 Equivalent facilitation. Nothing in these requirements prevents the use of designs, products, or technologies as alternatives to those prescribed, provided they result in substantially equivalent or greater accessibility and usability.

### 11B-104 Conventions

11B-104.1 Dimensions. Dimensions that are not stated as "maximum" or "minimum" are absolute.

11B-104.1.1 Construction and manufacturing tolerances. All dimensions are subject to conventional industry tolerances except where the requirement is stated as a range with specific minimum and maximum end points.

11B-104.2 Calculation of percentages. Where the required number of elements or facilities to be provided is determined by calculations of ratios or percentages and remainders or fractions result, the next greater whole number of such elements or facilities shall be provided. Where the determination of the required size or dimension of an element or facility involves ratios or percentages, rounding down for values less than one half shall be permitted.

11B-104.3 Figures. Unless specifically stated otherwise, figures are provided for informational purposes only.

### 11B-105 Referenced standards.

11B-105.1 General. See Chapter 35.

### 11B-106 Definitions

11B-106.1 General. For the purpose of this *chapter*, the terms *listed* in Section 11B-106.5 and defined in Chapter 2 have the indicated meaning.

11B-106.2 Terms defined in referenced standards. Terms not listed in Section 11B-106.5 and not defined in Chapter 2, Section 202, but specifically defined in a referenced standard, shall have the specified meaning from the referenced standard unless otherwise stated.

11B-106.3 Undefined terms. The meaning of terms not specifically listed in Section 11B-106.5, and not defined in Chapter 2, Section 202, or in referenced standards shall be as defined by collegiate dictionaries in the sense that the context implies.

11B-106.4 Interchangeability. See Chapter 2, Section 201.2.

| Convention            | Description  |  |
|-----------------------|--|--|
| 36<br>914<br>6<br>152 | dimension showing English units (in inches unless otherwise specified) above the line and SI units (in millimeters unless otherwise specified) below the line dimension for small measurements |  |
| 33-36<br>838-914      | dimension showing a range with minimum - maximum   |  |
| min                   | minimum  |  |
| max                   | maximum  |  |
| >                     | greater than   |  |
| ≥                     | greater than or equal to   |  |
| <                     | less than  |  |
| ≤                     | tess than or equal to  |  |
|                       | boundary of clear floor space or<br>maneuvering clearance  |  |
| —-— <u>©</u>          | centerline   |  |
|                       | a permitted element or its extension   |  |
| 4                     | direction of travel or approach  |  |
| $\longrightarrow$     | a wall, soor, ceiling or other element<br>cut in section or plan   |  |
|                       | a highlighted element in elevation or plan   |  |
|                       | location zone of element, control or<br>feature  |  |

FIGURE 11B-104
GRAPHIC CONVENTION FOR FIGURES

[A] 104.8 Liability. The building official, member of the board of appeals or employee charged with the enforcement of this code, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered liable personally and is hereby relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by legal representative of the jurisdiction until the final termination of the proceedings. The building official or any subordinate shall not be liable for cost in any action, suit or proceeding that is instituted in pursuance of the provisions of this code.

[A] 104.9 Approved materials and equipment. Materials, equipment and devices approved by the building official shall be constructed and installed in accordance with such approval.

[A] 104.9.1 Used materials and equipment. The use of used materials which meet the requirements of this code for new materials is permitted. Used equipment and devices shall not be reused unless approved by the building official.

[A] 104.10 Modifications. Wherever there are practical difficulties involved in carrying out the provisions of this code, the building official shall have the authority to grant modifications for individual cases, upon application of the owner or owner's representative, provided the building official shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, accessibility, life and fire safety, or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the department of building safety.

[A] 104.10.1 Flood hazard areas. The building official shall not grant modifications to any provision required in flood hazard areas as established by Section 1612.3 unless a determination has been made that:

- A showing of good and sufficient cause that the unique characteristics of the size, configuration or topography of the site render the elevation standards of Section 1612 inappropriate.
- A determination that failure to grant the variance would result in exceptional hardship by rendering the lot undevelopable.
- 3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, cause fraud on or victimization of the public, or conflict with existing laws or ordinances.
- A determination that the variance is the minimum necessary to afford relief, considering the flood hazard.

5. Submission to the applicant of written notice specifying the difference between the design flood elevation and the elevation to which the building is to be built, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation, and stating that construction below the design flood elevation increases risks to life and property.

[A] 104.11 Alternative materials, design and methods of construction and equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety. [DSA-SS & DSA-SS/CC, OSHPD 1, 2 & 4] Alternative system shall satisfy ASCE 7 Section 1.3, unless more restrictive requirements are established by this code for an equivalent system.

Alternative systems also satisfy the California Administrative Code, Section 7-104. [OSHPD 1, 2 & 4] and Section 4-304 [DSA-SS & DSA-SS/CC].

[A] 104.11.1 Research reports. Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from approved sources.

[A] 104.11.2 Tests. Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the building official shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the building official shall approve the testing procedures. Tests shall be performed by an approved agency. Reports of such tests shall be retained by the building official for the period required for retention of public records.

104.11.3 Peer review. [OSHPD 1 & 4] When peer review is required, it shall be performed pursuant to Section 3414A.

104.11.4 Earthquake monitoring instruments. [OSHPD 1 & 4] The enforcement agency may require earthquake monitoring instruments for any building that receives approval of an alternative system for the Lateral Force Resisting System (LFRS). There shall be a sufficient number of instruments to characterize the response of the building during an earthquake and shall include at least one tri-axial free field instrument or equivalent. A proposal for instrumentation and equipment specifications



### City of Santa Barbara Building & Safety Division

## CODE ALTERNATE CONSTRUCTION or MATERIAL PROPOSAL

Community Development Department 630 Garden Street 805-564-5485

[A] 104.11 2013 California Building Code – The provisions of this code are not intended to prevent the installation of any material or prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

| Project Address: 3714 - 3744 STATE ST New Case # BLD2015-0285  |
|--|
| Check One: Residential Single Family Residential Multi-family Commercial Mixed Use   |
| Person Submitting Request: John J. Schree Phone Number: 805-680-8989   |
| Property Owner: KW FUND Y - SANDMAN, LLC   |
| Briefly describe the code requirement, including all applicable code section(s), that you wish to provide an alternate for: the July 1, 2015 MID-CYCLE AMENOMENT III6.5A   |
| REQUIRING 3 OF TRUNCATED DOMES SEPANATING A DRIVE  |
| AISLE FROM WALKPATH SIDEWALK   |
| Briefly describe the Code Alternate which is being requested. Include the reason(s) for being unable to comply with the code requirements and provide any supporting documentation that may aide in the decision making process. Attach additional documents if necessary: |
| GEORGE ESTRELLA, OKED THE USE OF COMBINING A DRIVE AISLE W/ WALK WAY IF SEPARATE MATERIALS ARE USED, INCLUDING A 1 PEBBLE  |
| STRIP. THE BRAILE INSTITUTE SUPPORTED WHAT WE PROPOSED.  |
| THE ENTIRE PROJECT WAS DESIGNED AND APPROVED BASED ON THE DECISION AND, OUR GIRST BUILDING PERMIT WAS APPLIED FOR 6 WEEKS BEFORE THE CAPPLICANT: JOHN J. SCHUCK, OWNER, FRANKISCAN DEVELOPMENTS Ch.  |
| Signature:   |
| If a Code Alternative is granted, this completed form MUST be reproduced on the plans before the permit is issued.   |
| THIS SPACE FOR OFFICE USE ONLY   |
| Fire Department review by:Date:  |
| Building & Safety review by: 22 Date: 3/29/16  |
| Zoning/Planning review by:Date:  |
| Public Works review by:Date:   |
| Comments:  |
| FEES (A min. ½ hr. plan check fee is required at submittal. Additional fees may be required): \$   |





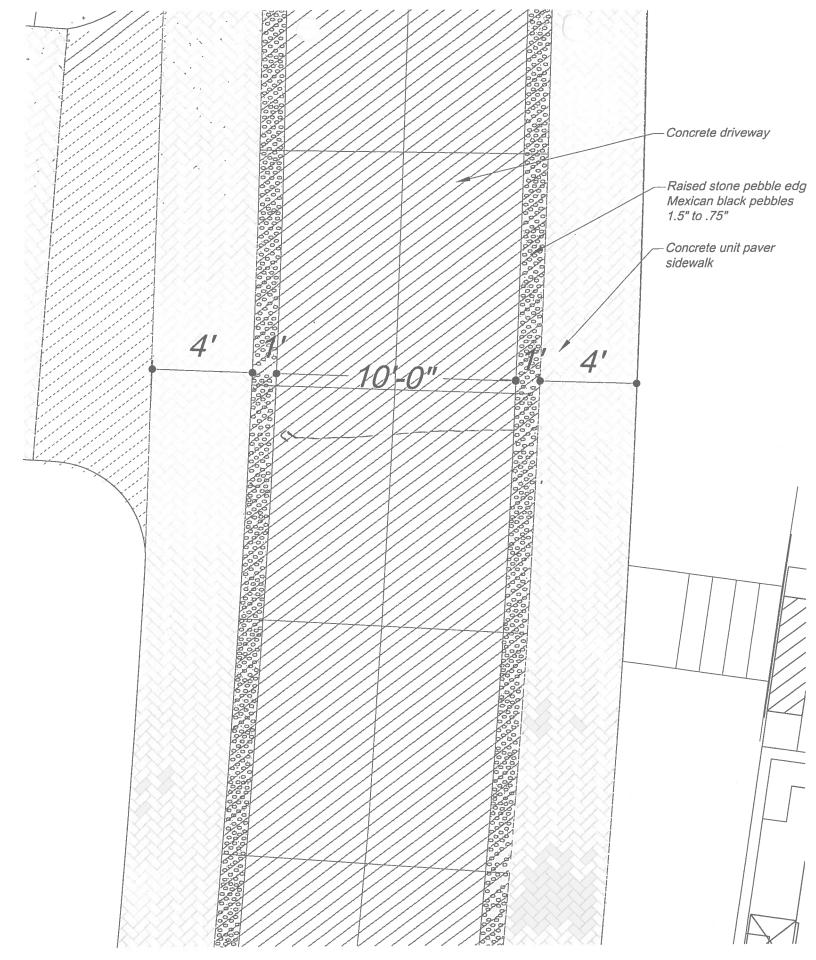


SAUDMAN 3714-3744 STATE STREET SAUTA BARBARA, CA 93105 FRAUCISCAU DEVELOPMENTS INC.



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ARCHITECTURAL SITE



TYPICAL PAVING / SANDMAN

1/4" = 1'-0"



Empowering visually impaired people to live fulfilling lives

Midhael R. Lazarovits EXECUTIVE DIRECTOR Santa Barbara

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Richard N. Weinreb, M.D.

December 20, 2013

Cearnal Andrulatis Architect & Interior Design Mr. Brain Cearnal 521 ½ State Street Santa Barbara, CA 93101

Dear Mr. Cearnal

On Wednesday, December 11, 2013, Orientation and Mobility Specialist, Kathleen Ely, and Braille Institute Staff member, Greg Benavidez, traveled to the Bella Riviera location to assess the walkways and driveways. Their primary purpose was to evaluate how safe and accessible these were for those who are blind and visually impaired. Below is their evaluation.

The pebble borders were easy to detect with a cane and ran consistently throughout the property to differentiate the walkways from the driveways. We both felt that it was an architecturally pleasing way to alert both sighted and visually impaired pedestrians. For those who are visually impaired, this is preferable to the truncated domes that are placed for the same purpose.

Kathleen Ely is s credentialed Orientation and Mobility Specialists through San Francisco State University. Orientation and Mobility Specialists provide instruction in basic skills and protective techniques, cane travel, visual efficiency training, intersection analysis and safe street crossings and use of public transportation.

Greg Benavidez has been the Access Technology Specialist at Braille Institute Santa Barbara for almost 9 years. He lost his vision 22 years ago due to retinitis pigmentosa.

Let me know if we can provide any additional information

Mula Community
Michael R. Lazarovits
Executive Director

Singerely.

52·1 1/2 STATE STREET SANTA BARBARA, CA 93101

P: 805.963.8077 x211 F: 805.963.0684

ja@cearnal.com www.cearnal.com

Please consider the environment before printing this e-mail

On Jan 6, 2014, at 2:37 PM, "Estrella, George" < GEstrella@SantaBarbaraCA.gov > wrote:

Joe,

Thanks, that will do it and I will approve it!

Although I have not seen the hard copy......but this is my first day back at the office. It must be around here somewhere.

George A. Estrella Chief Building Official City of Santa Barbara (805) 564-5553

Please note: Due to a compressed 9/80 work schedule, most city offices are closed every other Friday. To view the city calendar go to <a href="http://www.santabarbaraca.gov/Government/City\_Calendar">http://www.santabarbaraca.gov/Government/City\_Calendar</a>

From: Joe Andrulaitis [mailto:ja@cearnal.com]
Sent: Thursday, January 02, 2014 8:32 AM

To: Estrella, George

Cc: Brian Cearnal; Short, Chris; Cassidy, Lonnie J; Greg Parker; Ken Marshall

Subject: Re: BELLA RIVIERA ANALYSIS OF "PEBBLE STRIP"

George,

See attached comments from the Braille Institute on letterhead. Thanks

JOE ANDRULAITIS, AIA, LEED AP BD+C CEARNAL ANDRULAITIS LLP 521 1/2 STATE STREET SANTA BARBARA, CA 93101 P: 805.963.8077 x211

F: 805.963.0684

ja@cearnal.com www.cearnal.com

Please consider the environment before printing this e-mail

On Dec 12, 2013, at 2:16 PM, "Estrella, George" < GEstrella@SantaBarbaraCA.gov > wrote:

Brian,

That sounds great but please have this acknowledgement on Braille Institute letterhead as way of being more official, which can be included in the email. Once we receive this we will sign off as being in compliance and a very nice picture, which we can also use as documentation.

Thanks,

George A. Estrella Chief Building Official City of Santa Barbara (805) 564-5553

Please note: Due to a compressed 9/80 work schedule, most city offices are closed every other Friday. To view the city calendar go to <a href="http://www.santabarbaraca.gov/Government/City\_Calendar">http://www.santabarbaraca.gov/Government/City\_Calendar</a>

From: Brian Cearnal [mailto:bc@cearnal.com]
Sent: Thursday, December 12, 2013 12:37 PM

To: Estrella, George

Cc: Short, Chris; Cassidy, Lonnie J; Joseph Andrulaitis; Greg Parker

Subject: BELLA RIVIERA ANALYSIS OF "PEBBLE STRIP"

George,

I met yesterday with Braille Institute staff (Kathleen Ely & Greg\_\_\_\_\_don't have his last name) up at Bella Riviera.

They loved the Pebble Strip! Thought it worked better than truncated domes because of how it felt with the cane.

Kathleen indicated she will send an email confirming their observations for our records.

BC

<image001.jpg>
Brian Cearnal, AIA, LEED AP
Cearnal Andrulaitis, LLP
Architecture & Interior Design
521 1/2 State St. Santa Barbara, CA 93101



### City of Santa Barbara **Building and Safety Division** www.SantaBarbaraCA.gov

### **REQUEST FOR** APPEALS BOARD HEARING

|   |  | April 7, 2016                                |
|---|--|--|
| Subject Property Address 3732 State S   | t. APN   | Date   |
| Owner's Name KW Fund V-Sandman  | n, LLC   |  |
| Owners Address c/o Brian Cearnal  | , 521 State St. (Phone)                                      | (80.5) 963-8077                              |
| Owner's Email Addressbcearnal@cea   | rnal.com   |  |
| <b>Decision Being Appealed</b>  |  |  |
| A brief statement specifying order or action pr<br>Accessible Santa Barbara a   | otested:<br>ppeals from the decision                         | of the building                              |
| official to grant, on this  |  |  |
| BLD2016-00684 for a code a  | lternate. Please see at                                      | tached.                                      |
| ☐ Further explanation attached.   |  |  |
| ☐ Copy of protested notice attached.  |  |  |
| A brief statement of the reason the protested order<br>This decision is not the prop  |  |  |
| pursuant to the Cal. Health & Barbara appeals directly. This decision is not warrante scope of a waiver to accessiful official. Further explanation | ed under the applicable o                                    | codes and exceeds the<br>sed by the building |
|   | 30 days of the date of your hearing.                         | ű.   |
| Signature   |  |  |
| I certify under penalty of perjury that the foreg   | oing, to the best of my knowledge, is to                     | ue and correct. I                            |
| also acknowledge that the Board cannot waive  | any Code requirements and will only d                        | etermine the                                 |
| proper application of the code.   | Signature MMM Access William Rehling, Access                 | sible Santa Barbara                          |
| Questions   | P.O. Box 22013, Santa E                                      | Barbara CA 93121-2013                        |
| For further information contact the Building & S  | Safety Division at (805) 564-5485                            | City of Canada                               |
| Hours: Monday-Friday * 8:30 a.m. to 4:30 p.m. *Closed Alternate Fridays www.SantaBarbaraCA.gov  | Address: 630 Garden St, Santa Barba<br>Phone: (805) 564-5485 | APR 07 2016                                  |
|   | Contact: accessiblesb@gmail.com                              | RECEIVED                                     |

(805) 880-4724



(http://www.santabarbaraca.gov/default.asp)

### Case Status Results - Details

### **DISCLAIMER**

Every reasonable effort has been made to ensure the accuracy of the information provided; nevertheless, some information may not be accurate. Confirmation is recommended as there may be errors in the database.

### Status for Case BLD2016-00684

**Back** 

Address:

3732 STATE ST

Case Number:

BLD2016-00684

Case Type:

**Building Permit** 

Description:

Request to allow the installation of alternate method of compliance for the required truncated dome

installation per the 2015 CBC, Section 1116.5A.

**Application Date:** 

3/29/2016

MA

Status:

Sorted by Activity Completed Date - Oldest First

### Case Activities

Type

<u>Date Completed</u> <u>▲ (status.asp?Case=BLD2016-00684&Direction=DESC#SortedByINdicatorTable)</u>

Application Received

4/7/2016

Initial Review - Building

4/7/2016

Code Mod Approved

4/7/2016

Case Status Form (default.asp)

<u>Back</u>

Top of Page

This page is updated dynamically. The "Last Updated" date below reflects the last time the code for this page was modified.

Last Updated: Apr 2, 2014

4/7/2016 1:26 PM

### Stuffler, Andrew

From:

Brian Cearnal <bc@cearnal.com> Friday, April 22, 2016 1:57 PM

Sent: To:

Stuffler, Andrew

Cc: Subject: John Schuck Re: Summary of Bella Riviera visit with Brian and Bob

Andrew,

I have read Jim Marston's letter to you regarding our visit Bella Riviera.

I must strongly object to some of Jim's observations as follows:

- 1. Jim stated Bob Burnham was "unable to detect the safety warnings" (pebble strip). That is not correct. Bob was able to detect the pebble strip, he just had difficulty differentiating the pebble strip from the permeable pavers. When I took the cane, I certainly understood the problem of the similarity of sensation, but for me the pebble strip **did** feel different than the pavers. We discussed the color contrast and I agreed it could be better but I never suggested the pebble strip should change to yellow.
- 2. Jim indicated the traffic was mostly slow, but that was no guarantee of traffic flow. During the time we stood in the driveway (at least 20 minutes), 2 cars passed at very slow speed; well aware of our presence. The "highly researched need for 3' domes in Federal yellow" NEVER anticipated a 'woonerf' or 'shared street' concept that we are advocating for!

I have spent a lot of time at this site and at older projects we have designed with the 'woonerf' concept and the automobile traffic is always very light and travels very slow; always respectful of the pedestrian activity.

3. Jim suggests I "learned how my design would not be safe". I categorically disagree! I absolutely believe this application is safe because of the nature of the design. I would never advocate for any unsafe design! The pebble strip is a way to comply with the spirit of the code, but the true safety comes from the fact that this is NOT a traditional vehicular way that requires a conventional 3' strip of domes in Federal yellow.

I am disappointed that Jim completely failed to acknowledge this significant difference.

I look forward to the opportunity to defend our code modification request on May 5th. I agree with Jim that a more definitive spec for the pebble strips, including color and spacing, height, etc. would be advisable.

Thanks for your consideration and please share this reply with the Board.

Respectfully,

BC BRIAN CEARNAL, AIA, LEED AP THE CEARNAL COLLECTIVE, LLP 521 1/2 STATE STREET SANTA BARBARA, CA 93101 P: 805.963.8077 x203

F: 805.963.0684 C:805.689.4794 Please consider the environment before printing this e-mail

On Apr 22, 2016, at 10:26 AM, Stuffler, Andrew <a stuffler@SantaBarbaraCA.gov wrote:

Hi Brian,

Attached is an assessment of your meeting with local visually impaired access compliance advocates. Would you please read this and respond to it?

Thanks, Andrew

From: Jim Marston [mailto:jim.marston@gmail.com]

Sent: Tuesday, April 19, 2016 7:33 PM

To: Stuffler, Andrew

Subject: Summary of Bella Riviera visit with Brian and Bob

Good Morning Andrew, please see attached summary of our visit.

Jim Marston, Ph.D.

Assistant Project Scientist, Department of Geography

and the Institute for Social, Behavioral and Economic Research (ISBER)

University of California, Santa Barbara

Affiliate Scientist, Smith Kettlewell Eye Research Institute, San Francisco

**Google Scholar Citations** 

Marston CV

UCSB Web: http://www.geog.ucsb.edu/~marstonj/

### **Andrew Stuffler**

### **City Building Official**

Dear Andrew, thank you for including me in your suggestion that Mr. Brian Cearnal meet with members of the visually impaired community. We had a successful investigation at Bella Riviera site. I used my experience as a human factors investigator to perform about four walks and had Bob Burnham try and detect the one foot strip of pebbles. These walks went from one sidewalk to the other side at various angled crossings. Bob was unable to detect the safety warnings. I then had Brian take a cane and he too could not identify the warning, mentioning that the pavers felt just like the pebbles. We discussed that there was no color contrast, (he mentioned that he should change the pebbles to yellow) and that the one foot width allowed a cane to completely pass over the warning.

Brian of course was concerned about aesthetics, and I tried to explain that the more important item was pedestrian safety. I also pointed out that his pebbles were set randomly, and that any alternative should have complete specs, such as height, spacing, size etc.

I agreed that the traffic there was mostly slow, but that by itself is no guarantee of traffic flow and as far as I know, is still not a valid reason to ignore the highly researched need for three foot domes in Federal yellow.

We then stopped at 525 E Mitch and I had Bob stand in the parking lot, and then walk toward my voice on the sidewalk. Bob was easily able to identify when he was at the warnings and when he reached the safety of the sidewalk. I had Brian try the cane there and he realized how much more information they provided and I then pointed out how there was also the required "sound on cane' differential, and he agreed that the pebble surface did not provide that.

Brian said that he learned much from this visit and even talked about having us meet with the AIA group to discuss the needs of the visually impaired.

After the visit I received an email from Brian asking me what I thought about changing the plans and including a rolled curb, after checking with the fire department. I said he should discuss the code requirements for curbs with the City Plan checkers, but I do think, if this meets both fire and 11B code, this would be an acceptable alternative, but I could not give him blanket approval, as it would be a code issue at that point.

My impression was that he learned how his design would not be safe and he was willing to submit new plans.

Sincerely,

Jim marston Ph.D.



April 25, 2016

### THE "WOONERF" CONCEPT

The vehicular/pedestrian system designed for the Sandman project is a "woonerf"/paseo concept, also referred to as a "shared street" system.

Please see Exhibit A for a full explanation of a "woonerf."

The woonerf has been used successfully and safely throughout the United States and in many countries around the world.

Please see Exhibit B for woonerfs/shared street examples.

In fact, the woonerf/paseo concept has been used safely and successfully in Santa Barbara, both at Villa Del Mar (2004) located at the corner of Santa Barbara and Yanonali Street and at Bella Riviera (2012) located at the former St Francis Hospital site on upper Micheltorena Street.

In the woonerf concept, the vehicle becomes subordinate to the pedestrian resulting in enhanced pedestrian safety.

### THE SANDMAN CONCEPT

A vehicle or pedestrian enters the Sandman development off State Street, passing through a commercial zone that utilizes standard street design (such as curbed sidewalks and truncated domes), then enters the residential zone of the project.

This transition from the public sphere to the private is visually expressed with a portal and tactilely expressed with a change in pavement surface design – letting the user know that he/she has entered into a different environment, one that uses a private, one-way, residential drive that accesses each of the buildings.

This private, one way drive with extremely limited automobile traffic is not what the building code intended to address with the 3' wide truncated domes as detectable warning devices. These requirements were to address more typical street systems and intersections with a greater traffic intensity both in regards to speed and frequency.

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Page 1 of 2

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The Sandman woonerf system delineates a clean safe pedestrian zone of 5 feet on both sides of the 10' drive aisle. This safe zone is differentiated by a change in the paving material and with a one foot pebble strip. *Please see Exhibit C.* 

It is important that the paving material for this pedestrian zone not be the truncated domes because that would provide incorrect information to the users, indicating that they were in a conventional road system rather than the shared street system. By utilizing alternative surfacing such as the pebble strip, the user has been provided additional information to best understand the environment they are in.

In addition, the installation of the two rows of 3 foot wide truncated domes (if installed) would reduce the drive aisle to only six feet, forcing cars to drive on the detectable warning devices, defeating their purpose, and clearly not the intention of the code requirement. *Please see Exhibit D*.

### THE ALTERNATE MEANS AND METHODS CONCEPT

Because code requirements can't be a "one size fits all" application, the Building Official is given the flexibility and the responsibility to determine when a unique situation exists and he is given the authority to make positive finding for an alternate method.

The case for support of the Sandman alternate is well regarded by the Braille Institute and professionals in the Orientation and Mobility field. *Please see Exhibit E.* 

We believe the approval of the code alternate in the case of the Sandman development is not only warranted on its merit, but it is also a justifiable and responsible decision in this situation.

Page 2 of 2

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## EXHIBIT A

### **EXHIBIT A**

"A woonerf is a street or square where cars, pedestrians, cyclists, and other local residents travel together without traditional safety infrastructure to guide them. Also sometimes called a "shared street," a woonerf is generally free of traffic lights, stop signs, curbs, painted lines, and the like." <sup>1</sup>

"Even though it seems that the vehicular traffic and the pedestrians would conflict, the physical design subordinates the traffic. That situation is much safer for the pedestrian than is the usual street layout. Studies in Europe, Japan, and Israel show that on shared streets the number of accidents declines by more than 20 percent and the number of severe accidents by more than 50 percent, compared with traditional streets. (Toshi Jutaku 1983; Kanazaki, Ohomori, and Ishimura 1984; Polus 1985; Kraay 1986; Krause 1986; Nobel and Jenks 1989; Brilion and Blanke 1990; Engel 1990; Janssen 1991)" <sup>2</sup>

"This concept of 'shared space' was first conceived over thirty years ago by Hans Monderman, a traffic engineer from the Netherlands, who has helped bring what was first seen as an oddball movement into a mainstream approach to traffic engineering. Shared space schemes started in the Netherlands, spread to mainland Europe, UK and more recently Monderman's work is being picked up as far afield as USA and Russia. Monderman argues that while traditional tools of separation are necessary on motorways and busy highways where the single purpose is the movement of traffic, in the complex world of the public realm with its multitude of functions, they become redundant."

"Although until recently there have been relatively few examples of curbless streets being implemented in urban environments in the U.S., numerous such designs have either been implemented in the past few years or are in the pipeline." <sup>3</sup>

An example of a recently completed Shared Street is the Borderline Neighborhood in Santa Monica, CA, completed in 2013

<sup>&</sup>lt;sup>1</sup>"6 Places Where Cars, Bikes, and Pedestrians All Share the Road As Equals" The Atlantic CityLab website 2015/03/6

<sup>&</sup>lt;sup>2</sup> "Changing the Residential Street Scene" Eran Ben-Joseph APA Journal, Autumn 1995

<sup>&</sup>lt;sup>3</sup>http://www.sharedspace.org/download.asp?link='/files/15047/TEC.doc'&linkID=1353

"This unique Shared Green Street project (Borderline Neighborhood) also includes decorative and permeable street pavers at street intersections and parking areas, sidewalk constructed at street grade to better accommodate pedestrian and Americans with Disabilities access as well as other improvements including a new water line. The "Shared Green Street" concept integrates, rather than segregates, all road users in a non-hierarchical, people-oriented, low-speed environment where physical cues guide driver behavior rather than just traditional traffic signals, signs, markings and curbs."

<sup>&</sup>lt;sup>4</sup> League of California Cites website "Borderline Neighborhood" 2013

# EXHIBIT B

Created a curb-less street design to promote walkability Recommended sustainable landscaping and solar-powered lighting Improved access between a café and open space on opposite sides of the neighborhood



project. It puts more eyes and feet on the street by creating a park where people want to gather, play, neighborhood. No other city that we know of has This is much more than a street beautification walk their dogs, and generally enjoy the done this "

Neighborhood Group Improvement Committee Dennis Woods, Chair of the Borderline

# Constructed:

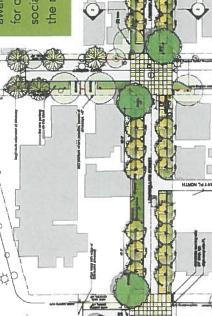
# Background/Function:

was stuck with visually unappealing, narrow streets backing up to a commercial area. concerns, the Borderline Neighborhood Citing crime, traffic, and quality of life

'woonerf," a term meaning "neighborhood

# Lessons:

curbs and using decorative pavers to delineate award-winning project, which preserves access for cars and emergency vehicles, encourages socializing, increasing a watchful presence in street becomes a community front yard. The permeable concrete, and solar lighting. The walking, driving, and socializing spaces, the By raising the roadbed to eliminate vertical including water runoff retention elements, design incorporates sustainable features the neighborhood.



δυροιμοος<sub>\</sub>

Group won funding to improve its streetscape cts/santa-monica-borderline-ne http://nelsonnygaard.com/proje

# BORDERLINE NEIGHBORHOOD SANTA MONICA, CA

Designer:

Nelson\Nygaard, Blackbird

in Santa Monica, the Borderline neighborhood

Nelson\Nygaard applied the Dutch concept of for living," to create shared space.

"Great Streets accommodate pedestrians and slow moving traffic - and the occasional duck."

Eugene Downtown Plan









Key intersections and main streets are provided shared space through brick crosswalks and plazas. Broadway at Willamette is at a single grade to facilitate shared space and provides seamless transition into the city plaza.

EUGENE, OR

Constructed: **Designer:** 

last 20 years

60 feet

Right Of Way:

Background/Function:

pedestrian friendliness with established city-wide on-street and off-street networks. The downtown has been redeveloped to include several intersec-The City of Eugene is known for its bicycle and tions (Broadway at Willamette as its major focus) that break down the barriers between bicycles, pedestrian and the automobile.

### Lessons:

lished a program of shared spaces demarcated by complete intersections that are at the same grade as the roadway, giving spatial priority to bikes old where pedestrian and vehicle conflicts might occur. The paving patterns blend into adjacent public spaces emphasizing locations of pedestrian brick areas. This includes not only crosswalks, but and pedestrians. Warning strips mark the thresh-Shared spaces: Eugene's downtown has estabDesign potetntial of parking: Downtown Eugene has an extensive network of bike and vehicle parking designed to de-emphasize on-street spaces and allow more shared space.











Palmer Street and Winthrop Street have both been reconfigured to be shared streets. Palmer is all one grade, whereas Winthrop relies on curbs and material change to define space within its shared right-of-way. Note the plan by Earth Tech which has clearly used material change and sidewalk width to define space.

image: Ciry of Cambridge

# PALMER & WINTHROP ST

CAMBRIDGE, MA

Designer. Earth Tech Constructed: 2010

Right Of Way: Background/Function:

25 feet

As part of the Harvard Square redevelopment project, both Palmer and Winthrop streets turned into shared streets from their humble beginnings of access alleyways. Inadequate pedestrian facilities spurred the decision to redesign these streets as shared spaces.

## Lessons:

Access to multi-use: The streets lie in the Harvard Square design district and is central to Harvard University. Flanked by neighborhood and boutique retail and restaurants, these streets are key to allow all modes to access these services.

Paving to define zones: Material choice includes textured concrete cobble pavers and brick sidewalks. Palmer Street also includes innovative street furniture that both defines space and is functional.

Low posted speed: While vehicle speed is self regulated in the surrounding area by numerous marked crossings and intersections, the shared streets are signed for 10 mph at the entries to the shared streets.

Supplemental parkings Parking for the area is provided by the Harvard Square parking garage just south of Winthrop Street. This allows for a relatively car-free shared street experience.

# STREET PRECEDENT FACTSHEET

# COMMUNITY DESIGN + ARCHITECTURE



"Brick, granite Belgian blocks for the "carriage way," water-washed pebbles and thermal-finished granite (between the brick and blocks) combine to give Cady's Alley a special character" — Stephan Kelly, landscapeonline.com

CADY'S ALLEY WASHINGTON DC

Landscape Architecture Bureau LLC. late 1990's

Designer:

Constructed: Right Of Way:

20 feet

Background/Function:

The area known as Cady's Alley was redeveloped in the late 1990's by a developer-led process involving individual architects. As a shared street and district it feels modern while still remaining authentic to its industrial past. Located in Georgetown's design district, Cady's Alley dates from Georgetown's industrial past. Now a mixed-use retail center, the shared street serves as an access alleyway with fronting buildings and cafes. Residential above ground floor retail helps keep the alley a 24-hour attraction.

## Lessons:

Decorative Paving: Brick pavers and natural stone pavers help define the pedestrian and vehicle zones respectively. However, the zones spans a single grade and is largely unused by vehicles. Is the roughness of the vehicular emphasis area a viable solution to ADA issues?

Bollards to define loading: While parking is not allowed within Cady's Alley, the retail center is supported by parking structures located to the north of the alley. Delivery and loading is allowed in wider areas defined with bollards, see photo to the left. This design approach can work with short term parking

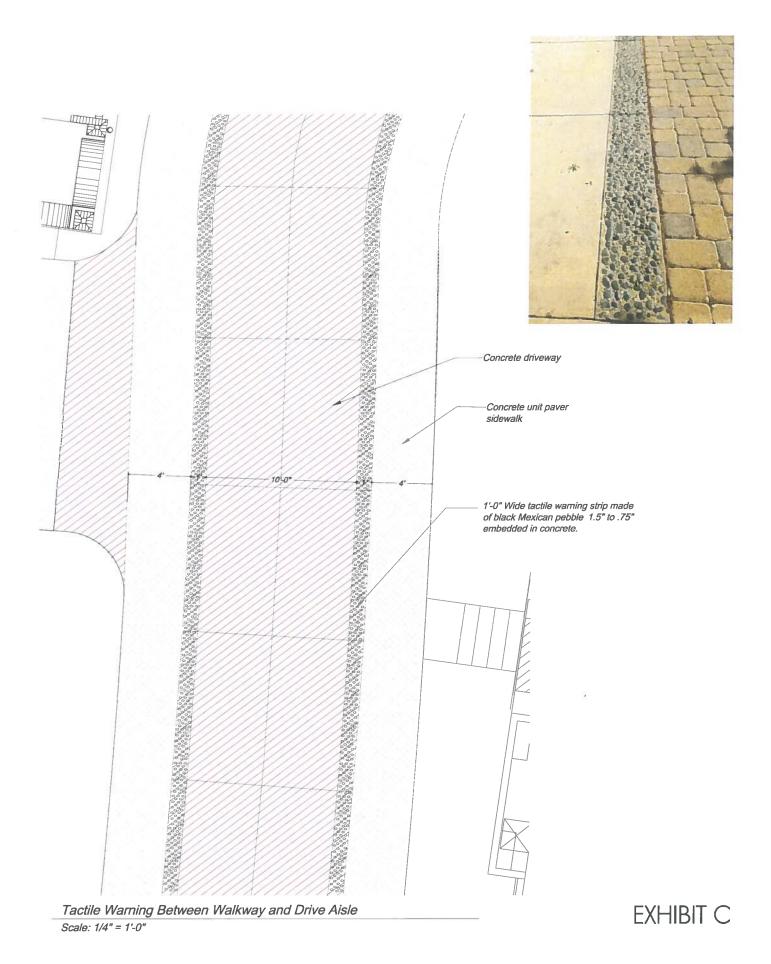


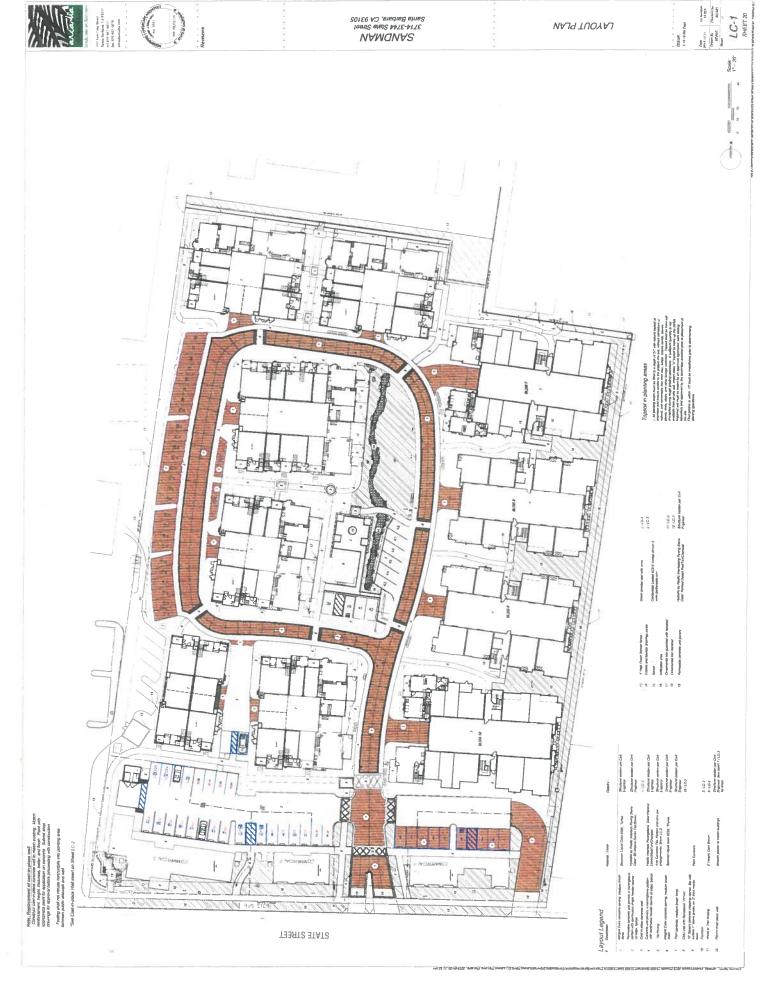
As a former delivery alley, Wall Street bas been transformed into a shared street and a model for a narrow shopping street. Note the change in paving and ways in which retail and residential frontage utilize the space.



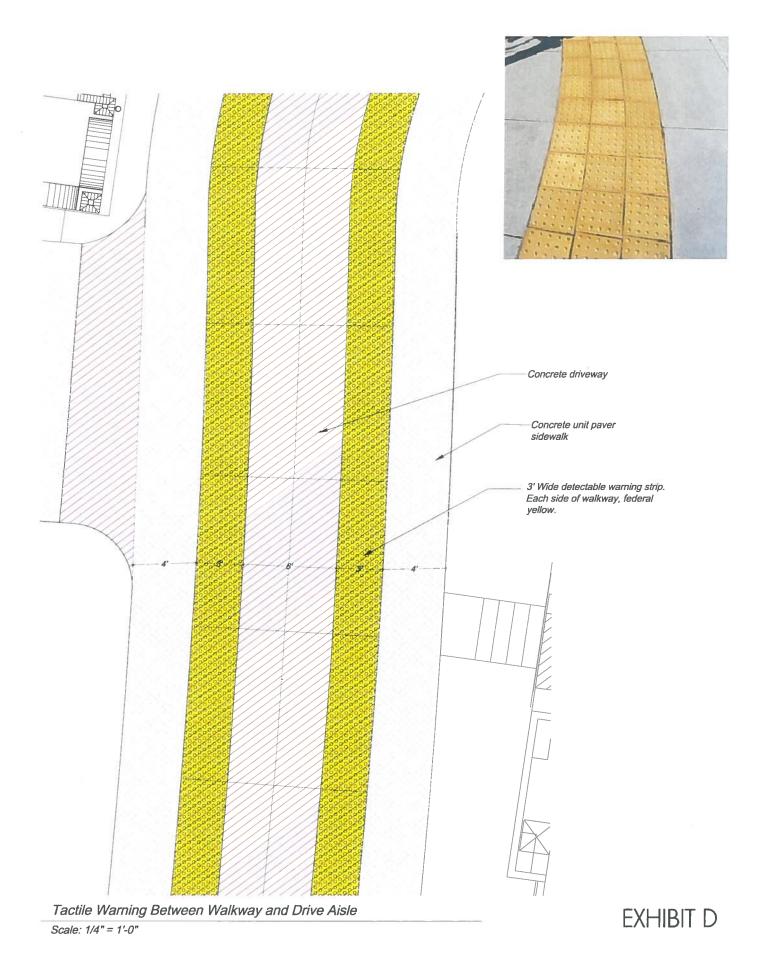


# EXHIBIT C





# EXHIBIT D



Contraction or libraries

May be contracted or libraries

May



STATE STREET

# EXHIBIT E



Michael R. Lazarovits EXECUTIVE DIRECTOR Sunta Barbara

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F.A.A.O., F.C.O.V.D.
Richard M. Weinreb, M.D.

December 20, 2013

Cearnal Andrulatis Architect & Interior Design Mr. Brain Cearnal 521 ½ State Street Santa Barbara, CA 93101

Dear Mr. Cearnal

On Wednesday, December 11, 2013, Orientation and Mobility Specialist, Kathleen Ely, and Braille Institute Staff member, Greg Benavidez, traveled to the Bella Riviera location to assess the walkways and driveways. Their primary purpose was to evaluate how safe and accessible these were for those who are blind and visually impaired. Below is their evaluation.

The pebble borders were easy to detect with a cane and ran consistently throughout the property to differentiate the walkways from the driveways. We both felt that it was an architecturally pleasing way to alert both sighted and visually impaired pedestrians. For those who are visually impaired, this is preferable to the truncated domes that are placed for the same purpose.

Kathleen Ely is s credentialed Orientation and Mobility Specialists through San Francisco State University. Orientation and Mobility Specialists provide instruction in basic skills and protective techniques, cane travel, visual efficiency training, intersection analysis and safe street crossings and use of public transportation.

Greg Benavidez has been the Access Technology Specialist at Braille Institute Santa Barbara for almost 9 years. He lost his vision 22 years ago due to retinitis pigmentosa.

Let me know if we can provide any additional information

Mulia genprai

Singerely,

Michael R. Lazarovits Executive Director

### KATHLEEN ELY

♠ 1006 Claremont Rd., Santa Barbara, CA 93105 

■ 805-886-1598 

kathleenely@cox.net

| Compared to the property of the p

### **EDUCATION**

University of California, Santa Barbara | Santa Barbara, California

Bachelor of Arts in Cultural Anthropology

California Polytechnic State University | San Luis Obispo, California

Standard Elementary Teaching Credential

Graduation: 1974

Graduation: 1972

<u>San Francisco State University</u> | San Francisco, California M.A. Education of Exceptional Children

Credential in Orientation and Mobility Specialized Teaching Minor in Visually Impaired Graduation: 1976

### EXPERIENCE

Ventura School District

1976-77

Teacher for the Visually Impaired and Orientation and Mobility Specialist K-6

### State Department of Rehabilitation | Santa Barbara, California

1977 - Present

Orientation and Mobility Specialist

Contract work with legally blind adults.

Teaching concepts to travel safely and independently in home and community.

### Santa Barbara High School District | Santa Barbara, California

1979 - 1999, 2005 - 2008

Teacher for the Visually Impaired and Orientation and Mobility Specialist (pre-school to 12th grade).

### Braille Institute | Santa Barbara, California

2009 - Present

Orientation and Mobility Specialist

Contract work with legally blind adults.

Teaching concepts to travel safely and independently in home and community.

Cane travel, public transportation, intersection analysis, safe street crossings, basic skill and protective techniques

Orientation to neighborhoods and schools

### Community support

ADA standards for UCSB

Working with city of Santa Barbara public works to install audible lights and detectable strips for street crossings